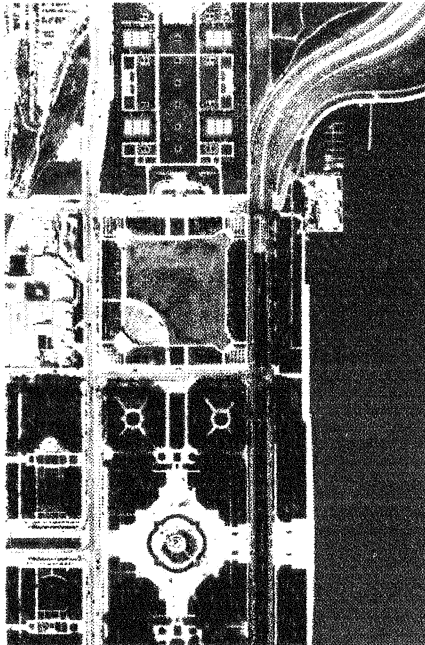


# ***Strategic Regional Arterial***

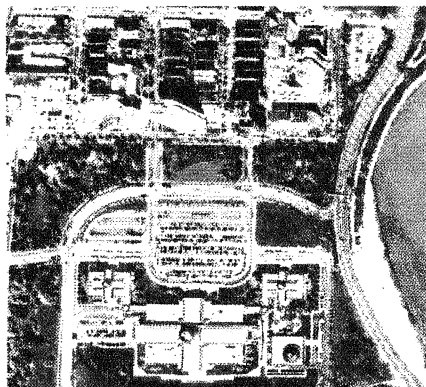


**Lake Shore Drive/ Stony Island  
Avenue**

**from Interstate 94 to Hollywood  
Avenue**

**FINAL REPORT**

## **Operation GreenLight**



**Illinois Department of Transportation  
May 1996**

## PREFACE

**Uniqueness of the Lake Shore Drive/Stony Island Avenue Corridor.** This corridor has certain characteristics which set it apart from other Strategic Regional Arterial (SRA) routes. The Lake Shore Drive (LSD) portion lies entirely within an urban park setting. Roadway aesthetics are a priority. The character and role of Lake Shore Drive are defined in several key planning documents. Among these documents are the 1909 Burnham Plan and the Lakefront Ordinance of the City of Chicago. Stony Island Avenue, from 95th Street to 67th Street, acts as a southern gateway to the City of Chicago, its lakefront, parks, and cultural institutions. Its wide planted median connects with historic Jackson Park at 67th Street. Unlike other SRA reports, specific solutions for each segment are not always proposed. Instead, alternatives which have been considered, and those meriting further study, are described.

The unique characteristics of this corridor caused a major revision to the typical design objectives used for SRA routes. The planning and design objectives used for this corridor are:

- Enhance safety.
- Eliminate operational problem spots.
- Maintain, but not increase, overall vehicle carrying capacity.
- Improve transit access to the Lakefront.
- Improve bicycle access near and across the corridor.
- Improve pedestrian access near and across the corridor.
- Maintain and enhance view corridors.
- Improve signing and driver information systems.
- Enhance consistency of interchange geometry and operations.

This SRA Report has been prepared for the Illinois Department of Transportation (IDOT) and the SRA Subcommittee of the Chicago Area Transportation Study (CATS) by Meridian Engineers & Planners, Inc.

Included in this report are a description of the study process, a detailed description and analysis of the existing route conditions, a description of the need for improvement, an explanation of the public involvement process, the planning context used to develop corridor alternatives, and a detailed description of corridor alternatives by segment.

Information regarding the study and this report are available from the Illinois Department of Transportation, through the SRA Project Manager - Mr. Rich Starr, 847/705-4095.

## EXECUTIVE SUMMARY

This report includes a range of improvement recommendations for specific sections of Lake Shore Drive and Stony Island Avenue. The recommendations are to be used by the Illinois Department of Transportation (IDOT) and local agencies when considering their capital improvement program priorities. No funding sources are identified. The report seeks to provide a vision of the future for Lake Shore Drive and Stony Island Avenue by addressing long-term needs associated with:

- Improved traffic operational efficiency
- Pedestrian and transit access to the Lakefront
- The enhancement of corridor aesthetics

Prioritization of alternative recommendations will occur after study completion. This will require input from local agencies.

### General - Study Limits

The Lake Shore Drive/Stony Islands Avenue Strategic Regional Arterial Study began in 1992. The study limits extend from Stony Island Avenue (at 95th Street), proceed north through Jackson Park and along Lake Shore Drive, to a northern terminus on Ridge Avenue at Peterson Avenue (see Exhibit 2.1.1.) The study area length is approximately 20 miles. The section of Lake Shore Drive between Balbo Drive and the Stevenson Expressway (Interstate 55) is not addressed in this report. This segment is addressed in the study and plans prepared by the Metropolitan Pier and Exposition Authority for the relocation of Lake Shore Drive to the west side of the Field Museum and Soldier Field. Additionally, the portion of Lake Shore Drive and Coast Guard Drive between 67th Street and 57th Street, while not included in the SRA network, was evaluated as part of this study.

### Report Organization

The report is divided into two volumes. Volume I - the study report itself, defines the basic recommendations. Volume II, the Appendix, provides more background information regarding study coordination, and other alternatives considered, and a corridor transit study.

## Planning and Design Objectives

Study recommendations were made in the context of several planning and design objectives:

- Enhance safety.
- Eliminate operational problem spots.
- Maintain, but not increase, overall vehicle carrying capacity.
- Improve transit access to the Lakefront.
- Improve bicycle access near and across the corridor.
- Improve pedestrian access near and across the corridor.
- Maintain and enhance view corridors.
- Improve signing and driver information systems.
- Enhance consistency of interchange geometry and operations.

## Guiding Philosophies

Study recommendations were developed in the context of the following guiding philosophies:

- To achieve no net-loss of green-space.
- To encourage as much public input as possible, within the constraints of the typical SRA public involvement process.
- To facilitate local agency and Illinois Department of Transportation consensus building.
- To consider and document all alternatives.
- To continuously consider the visual and recreational characteristics of Lake Shore Drive.
- To build upon the concept of Stony Island Avenue as a southern gateway to the Chicago community.

Some of the basic findings and recommendations of the study are as follows:

- The need to provide traffic operational improvements at specific problem spots.
- The need to encourage traffic signal system interconnection and coordination.
- Traffic management along Lake Shore Drive should provide a balance between the needs of peak-hour traffic, access to major Lakefront generators, and special event traffic.
- The need to provide aesthetic treatments along the entire corridor.



- To consider the location of east-west pedestrian/bicycle connections in the context of meeting land use and recreational objectives.
- To provide additional pedestrian overpasses along south Lake Shore Drive.
- Involve local community input in the definition of "landscaped" median alternatives.
- The need for a Lakefront Traffic Management Plan.

## Next Steps

IDOT will take the recommendations of this report to develop a "priority listing" of projects. The individual segments are defined to allow them to be treated as separate, free-standing projects. Several segments can be combined to form one project. Should IDOT decide to request and program engineering funds for a particular corridor segment, the following steps would need to occur before construction.

- Preparation of a "Phase I" preliminary engineering study and associated environmental documentation. This Phase I study would have its own public involvement process. It would also address storm-water management strategies and design solutions. The typical time-frame for completion of this work would be eighteen months to two years.
- Preparation of Phase II engineering plans, specifications, and cost estimates. This process takes approximately two years.
- Allocation of construction funds.

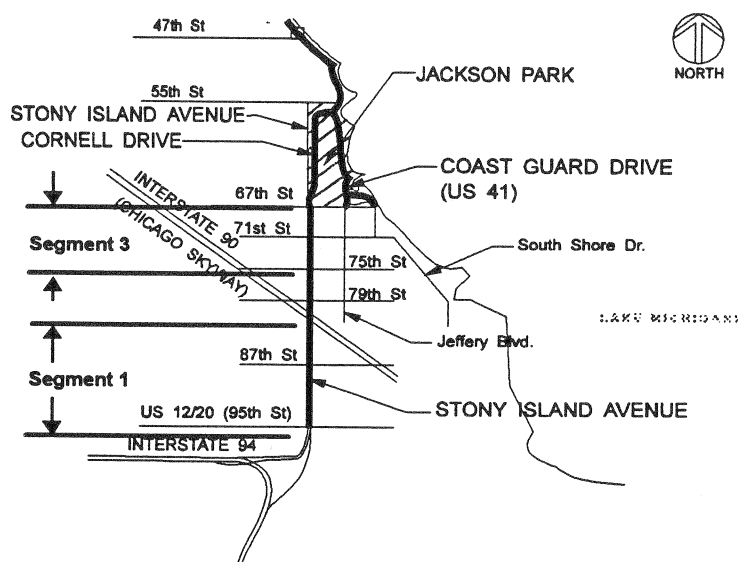
## SUMMARY OF RECOMMENDATIONS

The recommended alternatives by corridor segments are summarized in the following paragraphs. These alternatives are described in more detail in Chapter 5. Other alternatives considered are described in Appendix A. **Definitions for median treatments are described on page xxviii.** Future improvements by other agencies may provide the opportunity to implement alternatives which would otherwise be beyond study objectives. Additional details concerning alternatives beyond study objectives are included in Appendix B. The description of recommendations begins on Stony Island Avenue at 95th Street. The recommendations continue to the north along Lake Shore Drive to Ridge Avenue at Peterson Avenue in the Edgewater area.

### Segment 1: I-94 to I-90, and Segment 3: I-90 to 67th Street

The primary recommendations for these segments are:

- Reinforce the role of Stony Island Avenue as a southern gateway to the City of Chicago.
- Increase landscaping in parkways and the median.
- Replace the railroad structure at approximately 94th Street to allow for three northbound and three southbound lanes.
- Reduce traffic conflicts along the Corridor by emphasizing the 1/4-mile grid and eliminating minor cross street median openings.
- Maintain access to land uses by providing for "U-turns" at selected locations.
- Coordinate signals along the corridor.
- Consider bus pre-emption at signalized intersections.
- Improve pedestrian access across Stony Island Avenue.



### Segment 2: I-90 Interchange Area (81st Street to 76th Street)

The recommended improvements in this segment are:

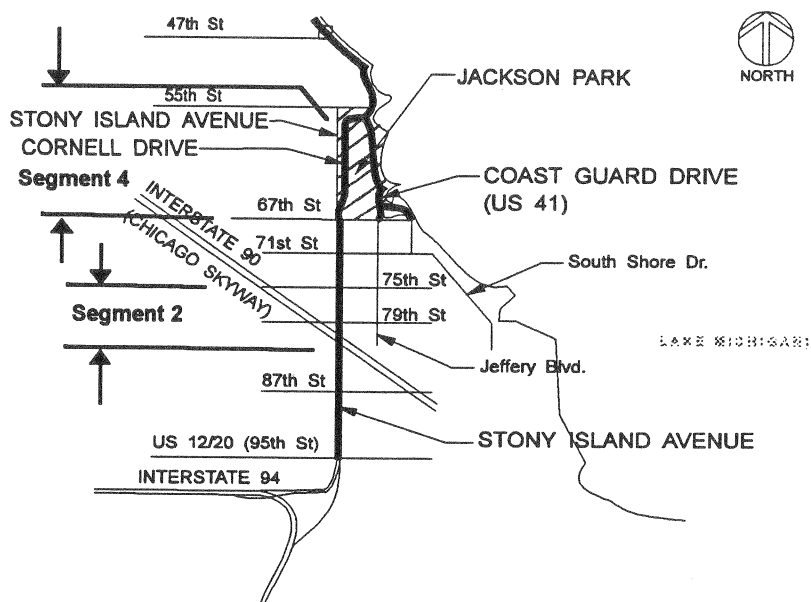
- Provide lane continuity on Stony Island from north of I-90 (the Skyway) to south of I-90.
- Eliminate the "choke point" on Stony Island Avenue at I-90.
- Replace the Conrail and the abandoned rail overpass structures.

- Consider column relocations for I-90 Chicago Skyway ramps.
- Provide more efficient and pedestrian actuated signals.

#### Segment 4: Jackson Park Area - Stony Island Avenue and Cornell Drive, 67th Street to Lake Shore Drive

Three alternatives are being considered for this segment. The alternatives are:

Alternative A - Limited Action  
 Alternative B - Shift SRA to Stony Island Avenue. Alternative B has two similar sub-alternatives.  
 Alternative C - Relocate North-bound movement at 67th Street  
 (See Figure 5.4.3)



#### Alternative A - Limited Action:

- Proposes no changes in existing traffic patterns and roadway network.
- Proposes the inclusion of a raised landscaped median on Stony Island Avenue on the west side of Jackson Park.
- Provision of a continuous median along 57th Drive.

#### Alternative B1 - Shift SRA at 57th Street:

- Moves through traffic to the periphery of the park at 57th Street.
- Significantly reduces traffic on Cornell Drive, an interior park road.
- Changes traffic patterns by diverting Cornell Drive through traffic onto Stony Island Avenue.
- May increase traffic noise and reduced air quality for sensitive land uses west of Stony Island Avenue (Hyde Park Career Academy, Doctor's Hospital of Jackson Park, Hyde Park YMCA, as well as others.)
- May impact the historic landscaping and layout of Jackson Park because of required widening along Stony Island Avenue.

#### Alternative B2 - Shift SRA at Midway Plaisance:

- Moves through traffic to the periphery of the park at Midway Plaisance.
- Changes traffic patterns to a lesser extent than Alternative B1, and maintains existing traffic patterns north of Midway Plaisance.

- Affects fewer sensitive land uses west of Stony Island Avenue with potential increased traffic noise and reduced air quality for (same land uses as Alternative B1 except the Doctor's Hospital of Jackson Park and other uses north of Midway Plaisance.)
- May impact the historic landscaping and layout of Jackson Park, because of required widening along Stony Island Avenue.

#### Alternative C - Relocate North-bound movement at 67th Street:

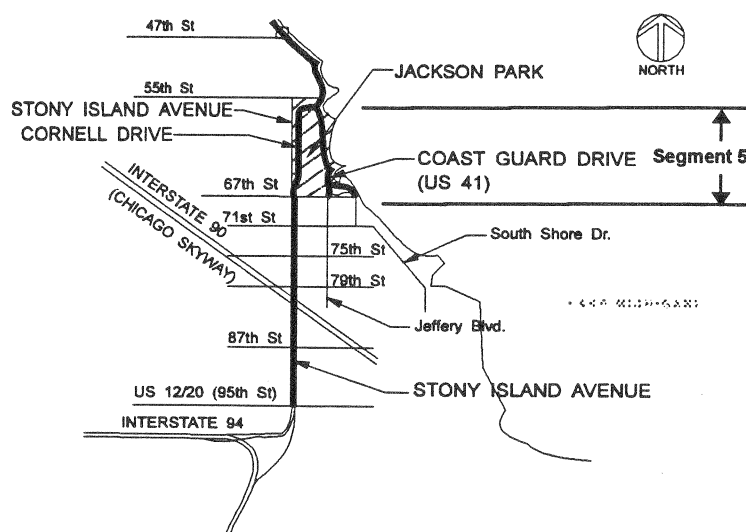
- De-emphasizes Stony Island Avenue as a through street.
- Eliminates northbound Cornell Drive between 67th Street and 66th Street.
- Eliminates northbound and southbound Cornell Drive between 66th Street and 65th Street.
- Opens portions of the southwest corner of the park to potential park uses.
- Relocates traffic to Cornell Drive between 65th Place and about 64th Street.
- May improve Stony Island Avenue intersection operations at 67th Street.

All alternatives could include some geometric changes to intersections, traffic signal modernization, and installation of a landscaped median and west parkway landscaping improvements along Stony Island Avenue.

#### Segment 5: Jackson Park Area - Coast Guard Drive/Lake Shore Drive, 67th Street to 57th Drive

##### Principal recommendations are:

- Extend the median concept from Burnham Park to Jackson Park along Lake Shore Drive/Coast Guard Drive.
- Realign Hayes Drive with the Jackson Park Beach area.
- Improve transit access to the Jackson Park Beach.
- Improve pedestrian access to the lakefront by providing grade-separated or at-grade crossings.
- Provide additional pedestrian at-grade crossing and overpass at 57th Street.
- Consider a permanent road and pedestrian crossing at "58th Street".
- Continue to coordinate with the City of Chicago pre-phase I study for the South Lake Shore Drive Safety Study.



Two median types are considered:

- Aesthetic Double-faced Median Wall, without landscaping (Alternative A1).
- Raised Landscaped Median (Alternative A2).

Median definitions are described on page xxviii, Key Terms.

Key design implications of these median types are:

The Aesthetic Double-Faced Median Wall

- Replaces the existing temporary barrier with a more aesthetic median barrier.
- Does not require any pavement widening or impact any greenspace.
- Maintains the existing drainage system.
- Maintains the existing lane widths.

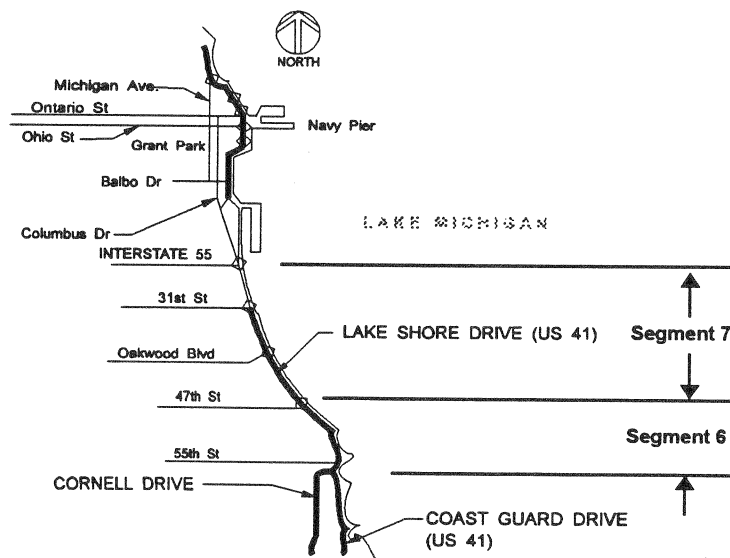
The Raised Landscaped Median

- Provides a raised landscaped median.
- Requires pavement widening and impacts greenspace in order to install the median.
- Provides lane widths of 11 feet.

#### Segment 6: Lake Shore Drive, 57th Drive to 47th Street

Recommendations developed for this segment are:

- Extend the median concept south along Lake Shore Drive.
- **Reduce the existing eight-lane cross section to six-lanes.** The lane reduction involves removing the northbound outside lane between 53rd Street and 47th Street and a southbound lane from north of 53rd Street to the 50th Place exit ramp.
- Improve southbound exit ramp geometry at 50th Place and 53rd Street.
- Improve northbound lane continuity at the 47th Street interchange.



Two median types are considered for this segment:

- Aesthetic Double-faced Median Wall, without landscaping (Alternative A1).
- Raised Landscaped Median (Alternative A2).

**The Raised Landscaped Median** may involve limited pavement widening along both sides or one side of Lake Shore Drive. Widening on both sides may require reconstruction of the entire cross section. Widening along the west side of Lake Shore Drive may impact a bridle path.

### Segment 7: Lake Shore Drive, 47th Street to I-55

Improvements in this segment consist of:

- Replacing existing mountable curb and gutter and gravel or paved shoulders with barrier curb and gutter and grass parkways.
- Providing emergency pull-out bays where warranted.
- Installing aesthetic double faced median wall or raised landscaped median at bridge approaches.
- Replacing steel guard rail with a more aesthetic style of barrier.
- Landscaping of median and parkway areas as needed.
- Improving transit access to the 31st Street Beach.
- Provision of additional pedestrian overpasses.

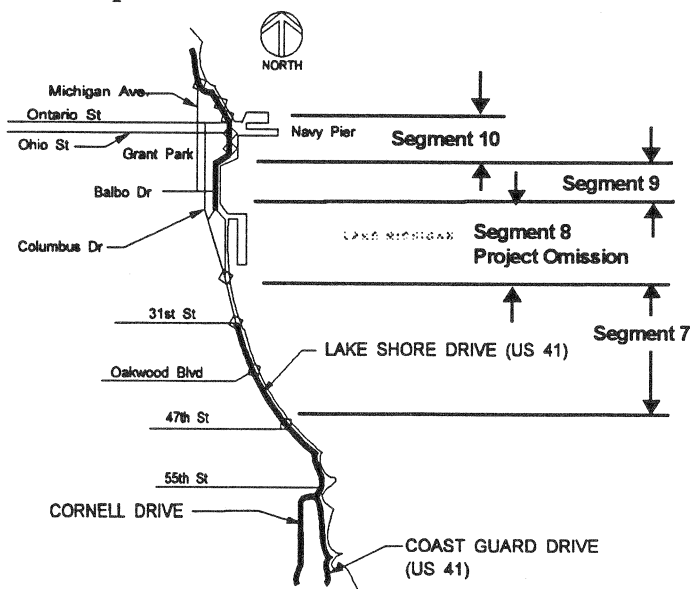
### Segment 8: Lake Shore Drive, I-55 to Balbo Drive

This segment is not included in this study. Major renovation and reconstruction will occur with the relocation of the northbound lanes of Lake Shore Drive in 1996.

### Segment 9: Lake Shore Drive, Grant Park area, from Balbo Drive to Monroe Street

The concept in this segment is to provide a "boulevard" type of street by installing a wide landscaped median. Principal recommendations are:

- Provide a 26-foot wide landscaped median.
- Focus pedestrian crossing sites at intersections by discouraging mid-block crossings with a raised landscaped median.
- Improve traffic operations along the segment by providing four continuous through lanes in the northbound direction.



- Improve intersection operations by providing dual left turn lanes.
- Improve pedestrian access to the Lakefront by constructing a concourse near Buckingham Fountain.

Three alternatives were developed for the proposed concourse location. They are:

Alternative A - Pedestrian Concourse at Buckingham Fountain.

Alternative B - Two pedestrian underpasses; one north and one south of Buckingham Fountain

Alternative C - Two pedestrian underpasses; one lined up with Harrison Street extended and one lined up with Van Buren Street

### Segment 10: Lake Shore Drive, Monroe Street to Ohio Street

Improvements in this segment include:

- Replacing the existing concrete barriers with aesthetic double-faced median wall or aesthetic wall with rail.
- Providing architectural street lighting instead of standard street lights.

### Segment 11: Lake Shore Drive, Ohio Street to Michigan Avenue

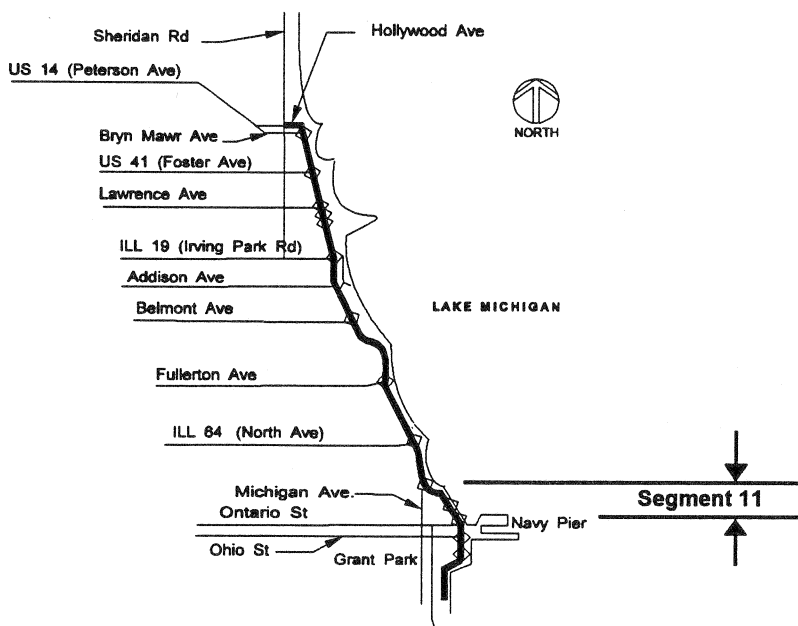
The design concept used to develop the two sub-alternatives studied for this segment is to provide protected dual left turn lanes for northbound Lake Shore Drive to westbound Chicago Avenue without lake fill. The sub-alternatives are:

Alternative A1 - Widen to west  
- Narrow Inner Drive

Alternative A2 - Widen to east - Narrow Lakefront Pedestrian Path

Both alternatives include:

- Limited widening of Chicago Avenue between Lake Shore Drive and Fairbanks Court to accommodate two westbound lanes, the existing parking, and eastbound through lanes.





- Replacing existing Lake Shore Drive concrete barriers with aesthetic double-faced median wall or aesthetic wall with rail.
- Improving the pedestrian underpass at two locations.

Provide a southbound entrance onto Lake Shore Drive at Superior Street.

Alternative A1:

- Does not impact the Lakefront pedestrian/bicycle path or seawall.
- Changes the Inner Drive from four-lanes (two each direction) to three lanes (one each direction with a center median for left turn lanes.)

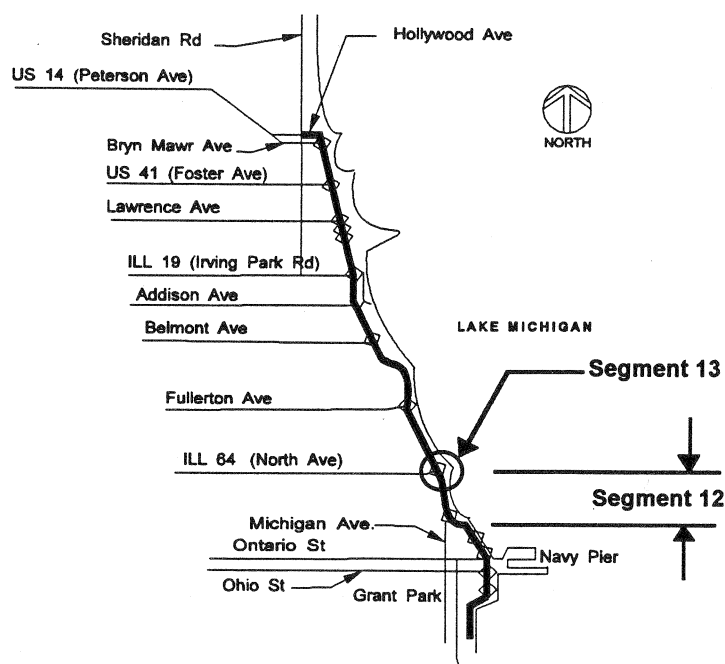
Alternative A2:

- Leaves the Inner Drive unchanged.
- Requires construction of a retaining wall to minimize impacts to the Lakefront pedestrian/bicycle path.

### Segment 12: Lake Shore Drive, Michigan Avenue to North Avenue

The recommended improvements for this segment are:

- Replace steel guard rail with aesthetic wall with rail.
- Replace chain link fence with a more aesthetic pedestrian barrier fence.
- Improve pedestrian concourses at three locations.
- Construct beach level path to separate pedestrians from bicyclists and reduce congestion.
- Improve existing pedestrian path surface.
- Consider architectural street lighting instead of standard street lights.



### Segment 13: Lake Shore Drive, LaSalle Drive Interchange Area

The design concept used to develop alternatives in this segment is to simplify the elements of the interchange area while increasing usable park space. A basic recommendation is to improve transit access to the North Avenue Beach.

Other recommendations include modifications to the intersection west of the LaSalle Drive bridge, realignment of the southbound to westbound ramp, and North Avenue Beach parking lot improvements. Any single recommendation, or combination of recommendations could be implemented for this segment.

Modifications to the intersection west of the LaSalle Drive bridge would:

- Reduce the existing three intersections to one.
- Provide a five-leg intersection by realigning the southbound entrance ramp.
- Accommodate existing turning movement needs.

The realignment of the southbound to westbound ramp:

- Utilizes a smaller radius for the southbound exit ramp onto LaSalle Drive.
- Reduces the existing 35 m.p.h. design speed to 30 m.p.h.
- Maintains a free-flow condition for this movement.
- Returns useable land to the park.
- Increases the weaving distance for the southbound exiting traffic merging into the far left lane to access North Avenue to the south.

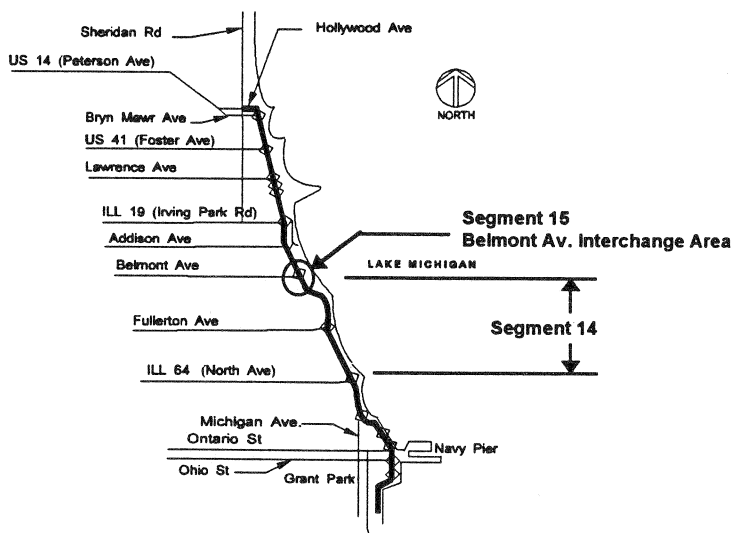
North Avenue Beach House parking lot reconfiguration improvements are:

- Eliminate parking lot access onto the northbound exit ramp.
- Provide cul-de-sac at south end of parking lot.

#### Segment 14: Lake Shore Drive, LaSalle Drive to Belmont Avenue

Improvements proposed for this section include:

- For the portion of the segment between North Avenue and Fullerton Avenue, a continuation of the improvements described in segment 12.
- Replacing steel guard rail with a more aesthetic wall with rail throughout the segment.
- Pedestrian concourse improvements at the Diversey Harbor inlet bridge.
- Lake Shore Drive ramp removals at the old Gun Club.



## **Segment 17: Lake Shore Drive, Montrose - Wilson - Lawrence Interchange Areas**

One limited-action alternative and two-build alternatives were developed for this segment. The design intent for the two build alternatives is to modify the **substandard weaving distances between these interchanges**. The alternatives are:

- **Limited Action Alternative.** Traffic operational analyses indicate that vehicles do operate within acceptable levels of service at this time. Some residents and elected officials have expressed a desire to maintain the existing interchange(s) configuration. Driver information systems improvements, such as additional directional signing, could be included in this alternative to direct traffic to the local arterial system, away from the already-congested Hollywood Avenue/Sheridan Road intersection.
- **Eliminate Wilson Avenue Ramps.** This would result in **one-half mile interchange spacing** between Montrose Avenue and Lawrence Avenue. This spacing is more appropriate than the current spacing from an operational standpoint because it allows weaving vehicles twice as much room to enter or exit the traffic stream on Lake Shore Drive. The total traffic on the Wilson Avenue ramps is less than that found on the Montrose Avenue or Lawrence Avenue ramps.
- **Eliminate the northbound entrance and southbound exit ramps at the Montrose and Wilson interchanges.** These ramps would be eliminated because the volume of traffic utilizing these is relatively low. In addition, weaving distance with other interchange ramps is reduced. This would not only eliminate the weaves on Lake Shore Drive, but would tend to divert trips, to and from the north, westerly over to Broadway and other north/south arterials. This alternative would also eliminate the "button-hook" type ramp connection from the southbound exit ramp at the Montrose Avenue interchange onto Marine Drive.

A basic recommendation in the interchange(s) area is to provide transit access to the Montrose harbor and beach area. This would reroute buses to the park, east of Lake Shore Drive. This would route the CTA bus route traveling east on Montrose Avenue to travel north on Simonds Drive, west on Wilson Avenue, then south on Marine Drive providing increased park access to CTA bus patrons. However, concerns regarding congestion on lakefront streets may require that a bus "turnaround" be provided on Montrose.

## **Segment 18: Lake Shore Drive, Lawrence to Hollywood**

Improvements recommended for this segment are:

- Replace steel guard rail with aesthetic wall with rail.

- Provide pedestrian underpass improvements at two locations.

**Segment 19: Dispersion Area including, Bryn Mawr, Hollywood, Ridge, Ashland, Foster, and Broadway Avenues**

The planning objective for this segment is to reduce through traffic on Hollywood Avenue and Ridge Avenue by dispersing through traffic to other arterial routes. Principal recommendations include:

- traffic signal coordination
- intersection channelization
- driver information services

Ongoing area-wide planning studies by the City of Chicago will develop definitive solutions which affect this area.

